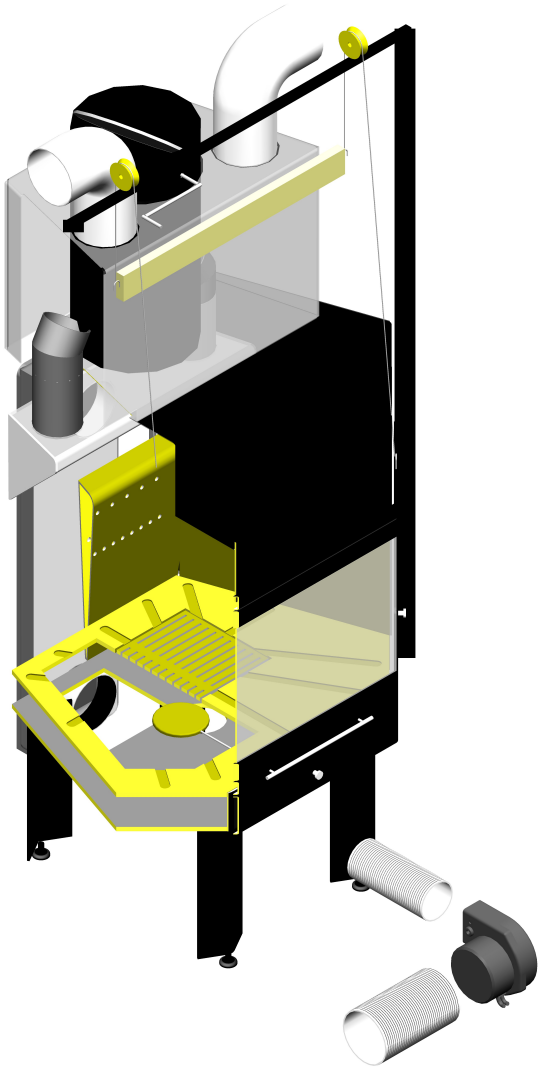
TSIAKMAKIS BROS CO - KAMINI

Energy Fireplaces



User's Manual

Installation & Operation

TSIAKMAKIS BROS CO

Manual
Installation, Operation & Maintenance

The present installation and operation user's manual
is part of the harmonization study for the
Kamini's Fireplaces
with the European directive for safety,
89/106/EEC for Construction products
According to the study the appliances are able to bear the CE marking.
The present manual has been composed and published by the manufacturing company:

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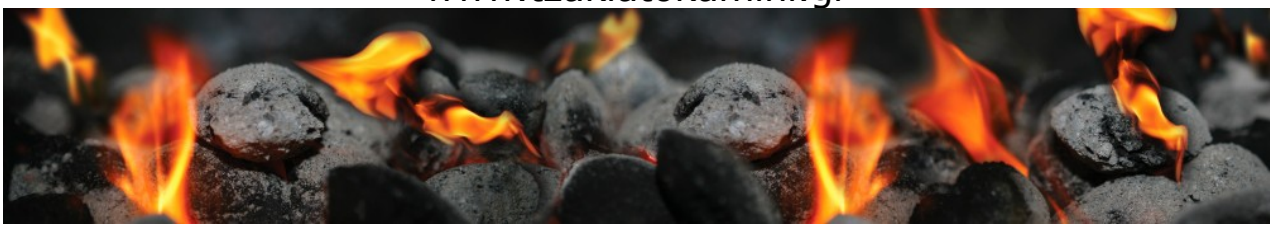

For the publication of this manual, the company has co-operated with the technical consultants:

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Chapter

1

Introduction

DO NOT DISCARD THIS MANUAL

Important operating and maintenance instructions included

Read, understand and follow these instructions for safe installation and operation

Dear customer,

TSIAKMAKIS BROS CO - KAMINI highly appreciates your choice of its product, a result of systematic study and embodying long-term experience on the fireplaces field. The product of TSIAKMAKIS BROS CO - KAMINI has been designed to provide the utmost in safety, reliability and high efficiency.

► *For your safety and better use of the fireplace, please read the users' manual thoroughly before installation and operation. Pay special attention to all cautions and warnings.*

- *This manual should be retained for future reference. We suggest you keep it with your other important documents and product manuals.*
- *The information contained in this manual unless noted otherwise, applies to all models and refers to the buyer-user of the appliance and anyone else is implicated on the installation and maintenance.*
- *Any change or intervention on the appliance except all mentioned in the present manual is forbidden.*
- *The installer has to apply all the installation instructions that are mentioned in the present manual, to do the first start and deliver the appliance only if its function has been thoroughly understood by the end user.*

The installation should be performed by well trained and qualified personnel.

If the information in these instructions is not exactly followed, a fire may result causing property damage, or personal injury.

- *TSIAKMAKIS BROS CO – KAMINI is not responsible in any body injury or property damage that may be caused from not applying the installation, operation, maintenance and safety instructions written in the present manual.*

Your new product will provide you many years of trouble-free enjoyment!

Chapter 2

Installation instructions

WARNING! Installation MUST comply with all local regulations, including those relating to national and European standards.

Chimney - introduction

The chimney is the duct from where the extraction of the exhaust gas to the environment is performed at the burning devices with natural draught (fireplaces – stoves).

The fireplace should fulfill the following specifications:

- The structure and the materials should be consistent with the safety rules.
- It is forbidden to pass through staircases, skylights or ventilation ducts.

The passing of the chimney through the wooden roof is forbidden except if perimetrical of the duct an extra built wall with adequate heat insulation is constructed.

Wooden roof components perimetrical to the chimney duct should be placed at a distance ≥70cm.

- The advisable material for the construction of the chimney is stainless steel sheet metal. In between the duct an insulating material is placed, that conserves the temperature and helps

the right draught and the avoidance of liquidation of the exhaust gas in the internal of its walls.

- ► Every chimney should be connected to exclusively one appliance (fireplace, stove, boiler, etc).
- ► The internal diameter of the chimney should be consistent with the specifications of the manufacturer.
- ► The profile of the chimney is advised to be circular because by this way the smooth flow of the exhaust gas is assisted, the friction is eliminated, and the attachment of burn products (smog, tar) at the walls is avoided.
- ► In case of square or rectangular profiles, the corners should have a radius ≥ 20mm.
- ► The height of the chimney should be ≥ 3,5 m from the top of the device and where a corner is needed to be constructed, this should be ≥ 45 °.

The common use of the same chimney with other appliances is prohibited.

No passing of water pipes, air conditioning or power cables inside the chimney is permitted.

TSIAKMAKIS BROS CO assumes no responsibility in case of injury or property damage if the installation instructions of the chimney are not followed.

Chimney outcome (hat)

The chimney ending (hat) is the device at the end of the chimney and is used to prevent the inflow of foreign bodies inside the chimney and the smooth flow of the exhaust gases to the atmosphere.

The hat should:

- ► Be constructed of materials resistant to weather conditions (e.g. stainless steel).
- ► If the closest obstacle to the chimney is a tree or an element inflammable and there is a danger of fire, then the minimum distance between the chimney and this element should be ≥ 8m.
- ► At buildings where more than one chimney end, the height difference would be ≥ 60cm to prevent inflow of smoke.

The hat of the chimney should be constructed so that it does not disturb neighboring buildings.

Installation space

The installation location is selected with criterion the safe use of the device, the position of the chimney and combustion air flow.

The installation and use of the device in bedrooms, bathrooms and stairwells is prohibited.

The use of the ventilation system while using the device in the same area is prohibited. There is a vacuum risk forcing the exhaust to get out from the device to the room.

The installation of the device in potentially explosive atmospheres is prohibited.

The use of the device in cooking areas where gas is used is permitted if there is ventilation.

The use of camera in places where there is a risk of fire is strictly prohibited.

Air supply

For the operation of the device it is necessary to provide ambient air to the combustion chamber of the device. Proper

air flow ensures proper combustion and provides fresh air to the ventilator, maintaining as much as possible the moisture content, reducing in that way the drying effect of the atmosphere.

- The air supply to the device should be compatible with the technical specifications of the device.
- If there is not direct air flow from the external environment then it can be obtained from adjacent areas that have contact with the outside environment via pipelines.
- The duct system should be constructed from heat resistant materials.
- On the outer side of the air supply louvers should be mounted for blocking importation of foreign bodies, and the holes should be able to deliver the required amount of air to the device.
- Make sure that during operation of the device the air flow will not stop.

Power supply

In case the device has a ventilator, it should be connected to the power supply in a distance ≥ 1m from the device through insulated conductor for protection. To start or stop operation of the ventilator a switch should be installed at a safe distance from the device radiation area or alternatively a wall digital controller.

- A silicone cable is recommended for the ventilator connection.
- All necessary measures to protect electrical connections from the heat emitted by the device should be taken.
- The installation of outdoor decorative lighting to the device is only permitted if the risk of fire from overheating or the short circuit of wires is eliminated.
- The facility should include grounding and electrical safety board, as defined by the technical regulations.

► The electrical connection should be done only by experienced and qualified personnel.

Ventilator installation

- If hot air is transferred from the device in adjacent rooms, the length of the pipelines should be ≤ 3m with the existing pipe profile Φ125mm.
- If you wish the transfer of air at a distance ≥ 3m it is proposed to use contractions for reducing the profile Φ125mm to Φ100mm in order to maintain the initial pressure.
- The operation control of the ventilator is done by a digital wall thermostat.
- The outlets of the warm air should be separated with a distance ≥ 35cm from walls and ceilings.
- The hot air transfer ducts should be made of smooth stainless steel tube.
- To reduce heat losses it is proposed to insulate the hot air transfer duct.
- To connect the fan with the outside air it should be used a hose of a Φ125mm diameter at both entrances of the ventilator.

The electric connection should be performed only by an experienced electrician.

Insulation installation

To eliminate the risk of possible ignition of flammable materials that are near the device and to minimize heat loss through the walls or ceiling it is suggested:

- The minimum distance between the chimney and the roof should be ≤ 30cm. The chimney should be insulated with a suitable non-combustible material which does not deform at high temperatures. In case of high risk it should also be installed additional ceiling insulation material over the device at a distance 30cm from the chimney.

Chapter 3

► If the wall is made of flammable material it should be installed plasterboard and additional ceiling insulation material between the ceiling and the plasterboard.

The flammable materials that are at a radius 40cm away from the chimney should be removed.

It is forbidden to install wires in the walls or ceiling at a distance ≤ 60cm from where the device is installed.

Failure to follow the insulation rules may cause fire.

As insulation material ceramic cotton is proposed.

Operation instructions

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

WARNING! High temperatures may ignite clothing or other combustible materials. Keep clothing, furniture and other combustible materials away.

The fireplace is designed to work with intermittent cycle.

If you expect that children may come into contact with this fireplace, we recommend locking the door of the fireplace.

Operation description

The environment air comes into the fireplace forced by the fan which is placed at the bottom of the fireplace. The air is pushed through the first air chamber where is preheated by the contact with the combustion chamber. The combustion is assisted by the secondary chamber, placed inside the combustion chamber, which emits more air to complete combustion and eliminate the monoxides. The air then enters the second air chamber which is placed inside the combustion chamber and is responsible for the 70% of the total heating of the air. When the air comes into the third air chamber it comes in contact with the fireplace chimney, through which hot exhaust circulates, and thus heats the air even more. The hot air comes out of the fireplace through the tubes at the top of the fireplace and the exhaust is led through the chimney to the environment.

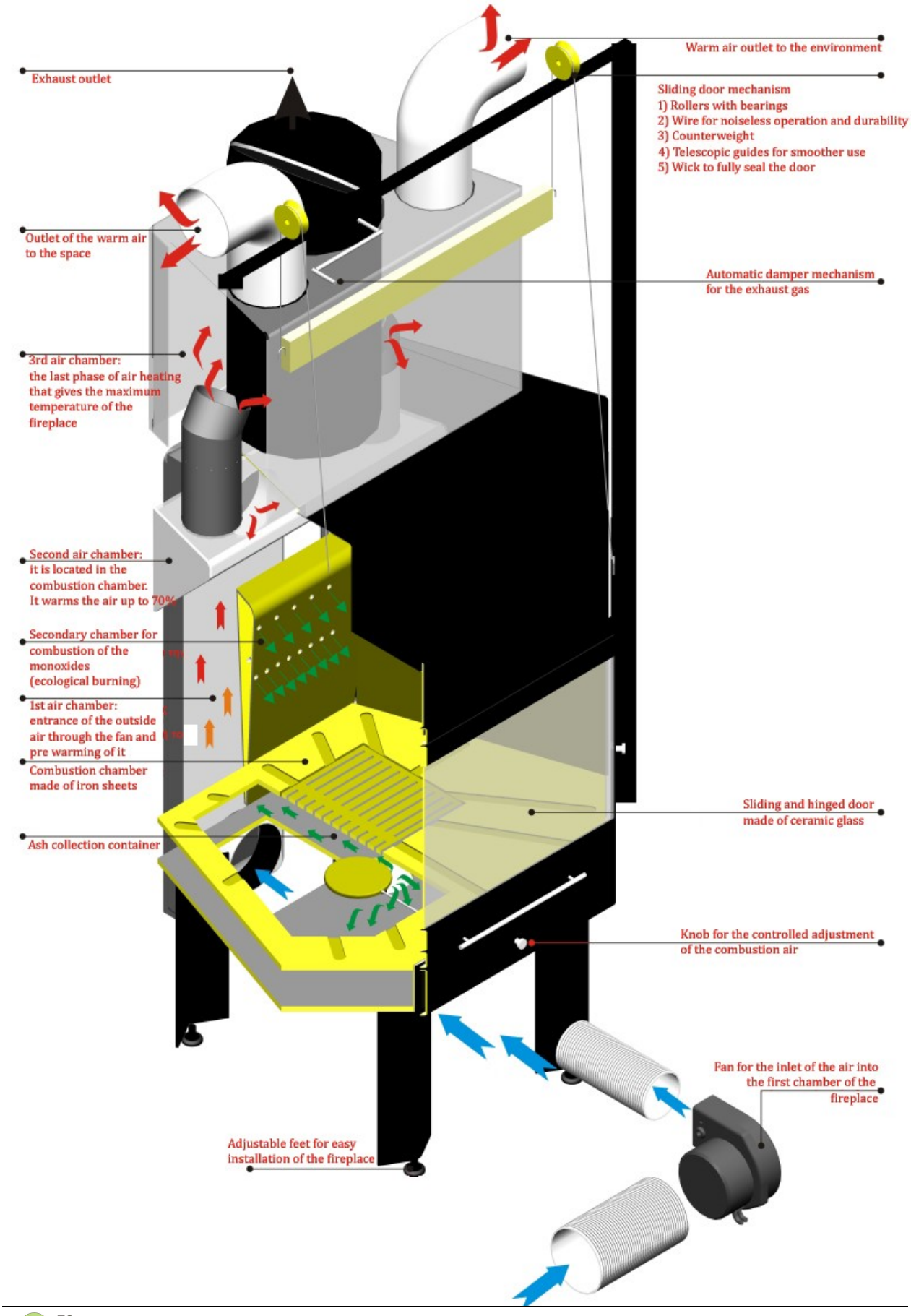
The fireplace is also equipped with:

1) a sliding door mechanism which has

- Rollers with bearings
- Wire for noiseless operation

- Counterweight
- Telescopic guides for smoother use
- Wick to fully seal the door

2) Automatic damper mechanism for the exhaust gas
3) Sliding and hinged door made of ceramic glass
4) Knob for the controlled adjustment of the combustion air


Warm air outlet to the environment
Exhaust outlet
Sliding door mechanism
1) Rollers with bearings
2) Wire for noiseless operation and durability
3) Counterweight
4) Telescopic guides for smoother use
5) Wick to fully seal the door
Outlet of the warm air to the space
Automatic damper mechanism for the exhaust gas
3rd air chamber: the last phase of air heating that gives the maximum temperature of the fireplace
Second air chamber: it is located in the combustion chamber. It warms the air up to 70%
Secondary chamber for combustion of the monoxides (ecological burning)
1st air chamber: entrance of the outside air through the fan and pre warming of it
Combustion chamber made of iron sheets
Sliding and hinged door made of ceramic glass
Ash collection container
Knob for the controlled adjustment of the combustion air
Fan for the inlet of the air into the first chamber of the fireplace
Adjustable feet for easy installation of the fireplace

Wood fuel

The device is designed to operate only with wood fuel.

► Properly seasoned wood is important for successful operation of your fireplace. Most woodburning fireplace problems are caused by burning wet, unseasoned wood. Seasoned firewood is wood that is cut to size, split and air dried to a moisture content of around 18%.

The wood fuel supply should be carried out, if possible, during the summer months.

► The continuous use of wet wood is causing pollution to the device and ceramic glass with tobacco and tar residues and fast blockage of the chimney.

► The wood that is recommended is: beech, oak, oak. Avoid resinous wood like pine, fir, and soft resin wood such as poplar, willow because they burn quickly releasing soot resulting fast blockage to the chimney.

► Prefer wood with high consistency and weight to ensure constant and intense flame.

WARNING! Risk of Fire! DO NOT burn wet or green wood.

WARNING! Fire Risk! DO NOT store wood:

- **In front of the fireplace.**
- **In space required for loading or ash removal.**

The use of wood fuel that cause small explosions is forbidden. There is risk of ceramic glass breakage and injury.

Burning of painted wood, chipboard, paper, plastics is forbidden. There is risk of damaging the chimney and environmental pollution.

The use of any liquid fuel is forbidden.

In addition:

- ► Do not place the wood on the walls and the ceramic glass of the device.
- ► Do not stack much wood, place it in a way that it gets air and thereby proper combustion is ensured.

Starting a fire

WARNING! Risk of Fire! Keep combustible materials, gasoline and other combustible vapors and liquids away from the fireplace.

DO NOT:

- **store combustible materials close to the fireplace**
- **use gasoline, liquid fuels, kerosene or similar liquids to start a fire or during the fireplace is in use.**

After installing the device the first test lighting should be performed to determine the correct installation and operation of the fireplace.

The first lighting should be done by the installer.

For the first lighting wood fuel should be used in quantities less than 50% of the nominal consumption of the device.

The first three or four fires should be of moderate size to allow the bending materials to be burned from the fireplace and paint to cure. You may notice an industrial smell during the first few fires. This is considered normal.

- ► Ventilate the area leaving a window open.
- ► If the device has a ventilator, it should be set under operation.
- ► Open the flue damper to a fully open position. To succeed this, close the door of the fireplace.
- ► Use twisted paper on the fireplace grate.
- ► Arrange kindling or small pieces of wood to form a 'tent' on the fireplace grate.
- ► Pre-warm the flue to establish a draught to help reduce smoke spillage during start-up. Hold a rolled up piece of burning newspaper under the flue damper for a few moments.
- ► Light the paper to ignite the kindling.
- ► Add small pieces of wood until a hot bed of coals has been established.
- ► Add a minimum of three average size pieces of firewood (and not more than six), placed to allow combustion air and flames between them.

CAUTION! Smells and vapors released during initial operation may be irritating to sensitive individuals. Open windows for air circulation.

WARNING! DO NOT throw the wood pieces with force in the fireplace. There is danger of crack or chink of the cast iron.

In no case stop the fire with water. There is danger of causing damage to the device.

Do not remove the burning wood from the device. There is danger of causing personal injury or fire.

Grate

This fireplace is designed to be used with the grate supplied with this unit. The grate may break down over time and may need occasional replacement.

WARNING! Risk of Fire! *Use only the factory-supplied grate:*

► Keeps logs in place.

► Allows proper air circulation around the fire.

Ash pan

This fireplace is designed to be used with the ash pan supplied with this unit. The ash pan is used to collect the ashes, which are disposed periodically.

CAUTION! The ash pan should be placed correctly, with the lower wall opposite the entrance of the air. Otherwise the entrance of air flow is restricted and traction problems are caused.

Flue damper

• Must be in fully open position (close the door of the fireplace) during operation of the fireplace.

• Before lighting the fireplace, verify fully open position by looking up from the inside of the fireplace.

WARNING! Risk of Fire and Asphyxiation! *Open damper prior to operating fireplace. A closed damper overfires the fireplace and spills smoke and flames into the room.*

Use of the device

The device you have purchased is designed to heat with minimized fuel consumption. To achieve this, you must configure and operate the device properly.

Follow the instructions for proper use of the device:

- ► During lighting make sure the space is clean and burning remains (ash-extinguished coals) from the previous combustion have been removed. The clean device facilitates air circulation between the wood and proper combustion.
- ► For firelighter use some paper or ready trade kindling.

Do not use liquid fuel for firelighter.

Place the wood fuel in a way that reduces the risk of falling outside the device or resting on the ceramic glass. There is a risk of fire.

Opening of the door

- ► The door should be opened slowly and be left half opened for some time (before fully open) to prevent any vacuum.
- ► Always use a glove that is provided with the device because many metal parts of the device develop high temperature and there is a risk of burning.
- ► The door should open on the side only if the ceramic glass is required to be cleaned.

Do not open the door if the device operates in the same room with air suction devices (hood, ventilation) because there is a case the smoke enters to the space from the fireplace.

Combustion adjustment

To adjust the combustion air move the metal handle at the bottom of the device inside out.

The air enters into the combustion chamber from the grate, which apart from the collection of ashes, it has the role to enter the air beneath wood fuel.

Quantity of air reaches the back wall of the chamber and passes through the specially designed holes on the top of the chamber, in order the secondary gas combustion is performed and not be released carbon monoxide to the atmosphere.

Damper

The device has an automatic system for the opening-closing of the damper, which is performed with the opening-closing (up and down) of the door.

Combustion maintenance

During the night, the chamber has the capability to sustain in a minimum level the combustion.

In order this can happen the following should be done:

► Place large wood in a horizontal position

► Adjust the combustion air inlet at the closed position

You can open the ventilator at low volume.

Throughout the combustion maintenance, the door has to be closed.

Prolonged use of the device causes more tar accumulation in the chimney and at the ceramic glass demanding a more frequent cleaning.

Use with door open

The device operates with the door open. In this case it loses its energy properties and the combustion is done with the traditional way, with high wood consumption and low efficiency.

For safety reasons, the manufacturer recommends not to leave the door open for a long period. The operation mode of the device changes and is likely that due to provocation of vacuum, for example by the sudden opening of a door, smoke goes out from the fireplace.

Do not leave the device with the door open. Danger of fire resulting from sparks or coals that may fall out of the device.

Make sure you do not leave access to young children, while the door is open.

Stopping a fire

The stopping of the fire is done only when the entire amount of wood in the fireplace is consumed.

Separate the pieces of wood to stop the fire.

If you wish to stop the fire immediately, you can adjust the air flow in the closed position (OFF).

The fire due to lack of oxygen will stop.

WARNING! DO NOT stop the fire with water. There is a danger of crack or chink of the cast iron.

In case of fire use a fire distinguisher.

Chapter 4

Maintenance and service

For long-term economic and safe operation of the device the maintenance instructions provided in this manual should be faithfully performed.

Thorough inspection and maintenance of the device should be held annually before the start of the season (autumn).

► All cleaning - maintenance work should be performed with the device stopped and the ash cleaned.

► Maintenance should be performed by qualified individuals.

Except from programmed annual maintenance, additional inspections should also be performed.

Cleaning of the chimney

► Remove the tar and the soot from the walls of the chimney using a special brush.

Cooking food is not recommended due to the fats that stick at the walls of the chimney with possible risk of self ignition and fire.

Chemicals for the separation of soot are not sufficient to clean the chimney.

The accumulated tar can be self igniting. Carry out regular inspection and cleaning of the chimney.

Combustion chamber cleaning

You should perform daily cleaning of the interior of the combustion chamber, because accumulated ash may reach up the grill and may gradually cause malfunction of the chamber.

The ash pan underneath the grill should also be cleaned every day. In case the container fills the air supply to the wood may be cut off resulting poor combustion and soot accumulation in the chamber.

- ► The cleaning is done with the device stopped.
- ► Remove the ash, after making sure that there are no burning coals.
- ► Use a metal container for ash removal. Before emptying the container into the trash, hold it in place away from flammable materials to make sure it is fully extinguished.
- ► The coals that are outside from the fireplace can cause fire.

The grate and the ash pan are consumables and may need replacement after 3-4 seasons of operation. Check the sale points for the supply of the spare parts.

Ceramic crystal cleaning

To clean the ceramic glass you should open the door to the side. Use the key provided for the side opening of the door.

The cleaning of the crystal is performed when the device is stopped.

Do not use materials that can scratch the glass. The engraving can be converted into crack.

The crystals that KAMINI is using are ceramic with 4mm thickness, with very high resistance to thermal shock 800 °C and high elasticity. But it can be broken by a strong hit.

Frequency	Action	Description
When ashes reach the bottom of the grate	Disposal of ashes	***WARNING! Risk of Fire!*** *Ashes could contain hot members.* • Place ashes in a metal container with cap • The closed container should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. • If the ashes are disposed at public buckets, they should be retained in the closed container until all members have thoroughly cooled.
Twice a year	Chimney Inspection / Cleaning	***WARNING! Risk of Fire!*** *A chimney fire can permanently damage your chimney system and nearby structures.* The action should be performed by a chimney sweep. • Remove the termination cap by removing the screws • Inspect/clean the interior of the chimney • Replace the termination cap
After each ash removal	Inspect Grate	Inspect the grate and replace if: • Deformation has occurred • Is broken • Burn-through of grate bars
Before every use	Ceramic glass cleaning	***WARNING! The chamber should be completely off.*** Use a wet cloth made of non inflammable material.

Chapter 5

Safety instructions

Safety distances

The zone around the fireplace: at least one meter around the fireplace, there must be no combustible material e.g. carpet, wooden furniture, curtains and any flammable liquids or materials igniter.

► Regulate the air exits (blinds) of the hot air so that they do not have direction on sensitive materials (curtains, curtain rods).

Fire prevention

► Do not allow inexperienced persons or children to come in contact with the device without supervision.

► Inspect the chimney frequent for the accumulation of combustion residues.

► Use only recommended wood fuel.

► The use of liquid fuel is forbidden.

► Save safely the ash that contains hot coals.

► Keep the safety distances listed.

► Follow accurately the maintenance guidelines.

Chapter 6

Troubleshooting

S/N	Start Fire Problems	Possible Cause	Solution
1	Can’t get fire started	The wood is too wet.	Use dry kindling, smaller and dryer wood.
		The air regulator is closed.	Open the air regulator.
2	The chamber lets out excessive smoke when the door gets open.	The door opens very quickly.	Open the door more smoothly letting it half open before you entirely open it.
		There is another suction device at the same place.	Close all the suction devices.
		The chimney has blocked.	Check and clean the chimney if needed.
		The profile of the combustion air inlet duct is small.	Increase the profile of the combustion air inlet duct.
3	The chamber lets out excessive smoke when there are bad whether	The chimney is not insulated.	Insulate the chimney properly.
		The chimney does not have the proper height.	Raise the chimney to the proper height, higher

S/N	Start Fire Problems	Possible Cause	Solution
	conditions.		from possible obstacles.
4	The ceramic glass is excessively smoky.	Inappropriate wood.	Use appropriate wood.
		Inappropriate convection.	Chimney inspection.
		Wet wood.	Use dry wood.
		Inadequate combustion air.	Open the combustion air regulator.
5	The fireplace does not warm the space.	Inadequate volume of wood.	Use the right volume of wood (see technical characteristics)
		Inappropriate size of device for the space to be warm with.	Choose the appropriate size of device or combine with other warming means.
		Inadequate space insulation.	Insulate the space appropriately.
6	The ventilator does not operate.	Wrong connection.	Check the wire connections.
		Thermostat breakdown.	Check or replace the thermostat.
		Ventilator breakdown.	Check the ventilator.
		Power supply interruption.	Check the power supply.
7	The volume of the warm air is low and the air is not	Inadequate insulation of the air ducts.	Insulate the air ducts properly.

S/N	Start Fire Problems	Possible Cause	Solution
	warm enough.	Wrong profile choice of the air ducts.	Choose the right air ducts profile.
		Loss of air from the air ducts.	Check any damage at the air ducts.
		Low ventilator volume.	Increase the volume of the air from the regulator.

Chapter 7

Marking

Each device is clearly and permanently marked in an accessible place where the information can be read when the device is placed in its final position, with the following information:
- The name of the manufacturer
- Type and description of the model to facilitate the identification of device
- Nominal heat output in kilowatts,
- The number of the European standard to which it is conformed
- The performance of the device and the CO category

The label has the following form:

<table>
<tr><td rowspan="2">CE</td><td>ΑΦΟΙ ΤΣΙΑΚΜΑΚΗ Ο.Ε., Προέκταση Ολυμπιάδος, Εύοσμος, Θεσσαλονίκη, 56224, Ελλάδα

TSIAKMAKIS BROS CO, Over ring road Olimbiados str., Evosmos, Thessaloniki, 56224, Greece</td></tr>
<tr><td>EN 13229:2004
Εντιθέμενες συσκευές, περιλαμβανομένων ανοικτών εστιών που καίνε στερεά καύσιμα
Inset appliances including open fires fired by solid fuels

Θερμική ισχύς εξόδου: XX (KW)
Nominal heat output: XX (KW)

Απόδοση:
Efficiency:

Κατηγορία CO:
CO category:</td></tr>
<tr><td colspan="2">Τύπος/Type: X-XXX-Μοντέλο/Model*</td></tr>
</table>

* e.g. S-120-arctica (arctica straight-120)

Supplementary labels are provided giving the following information:

« ***Read and follow the operation instructions»***

« ***Use only recommended fuels»***

Chapter 8

Technical characteristics

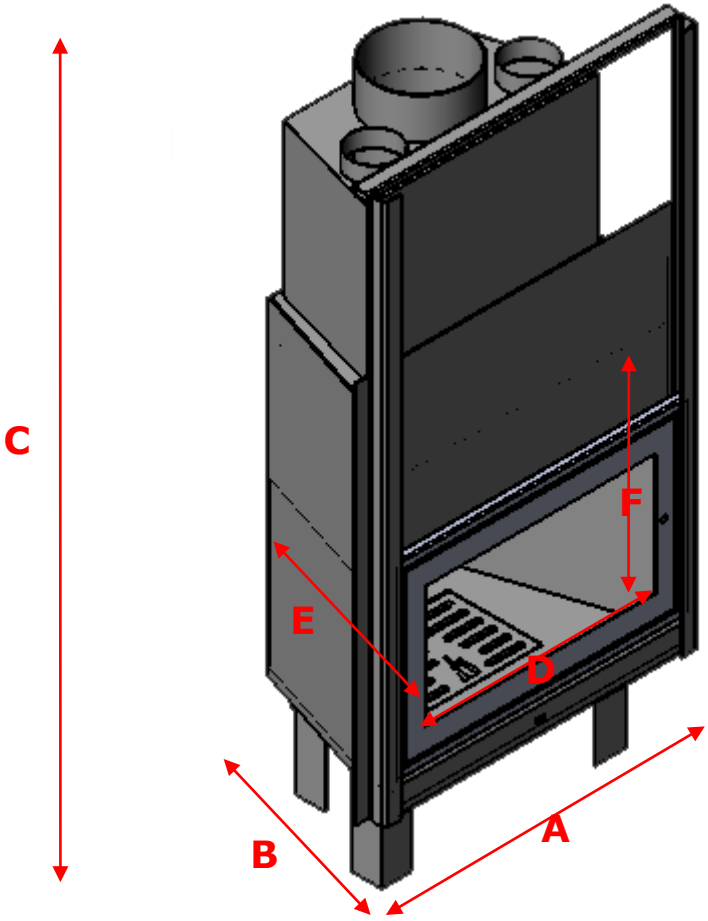
The KAMINI fireplaces are manufactured with the most durable materials. Using advanced technology we have created a competitive end product, capable of meeting the most modern requirements.

Made entirely of thick steel, they create a waterproof casing, offering 100% seal preventing the exhaust escape, which often happens in ordinary cast iron fireplaces. The fire-resistant structure of the device is composed of cast iron plates. The glass that are used are ceramic with resistance at 800 °C, very high resistance to temperature changes and to chemical reactions caused by combustion.

The fireplaces are dual burning, with the capability to adjust the fire increasing or reducing the air flow of primary and secondary combustion.

The main advantage of the fireplaces is the high efficiency with the low power/wood consumption that is achieved by the ability to regulate the combustion.

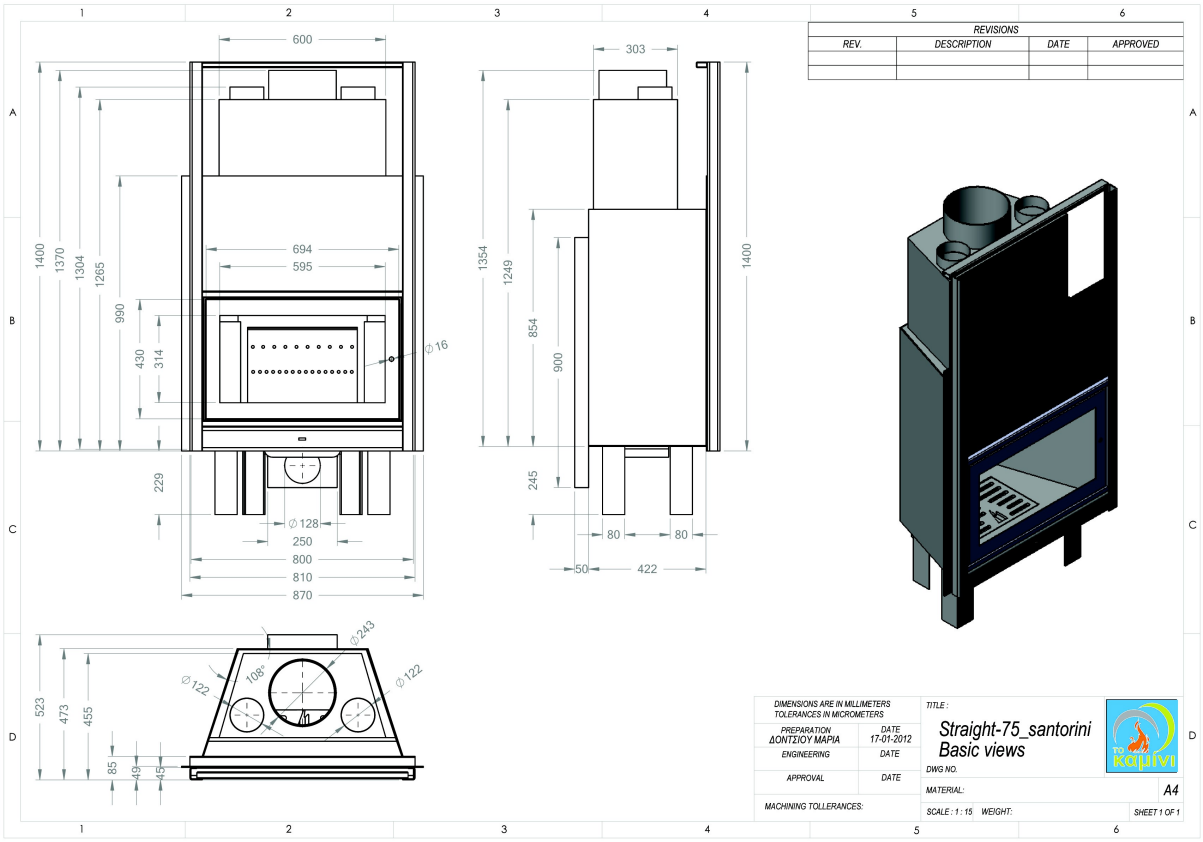
Straight fireplaces

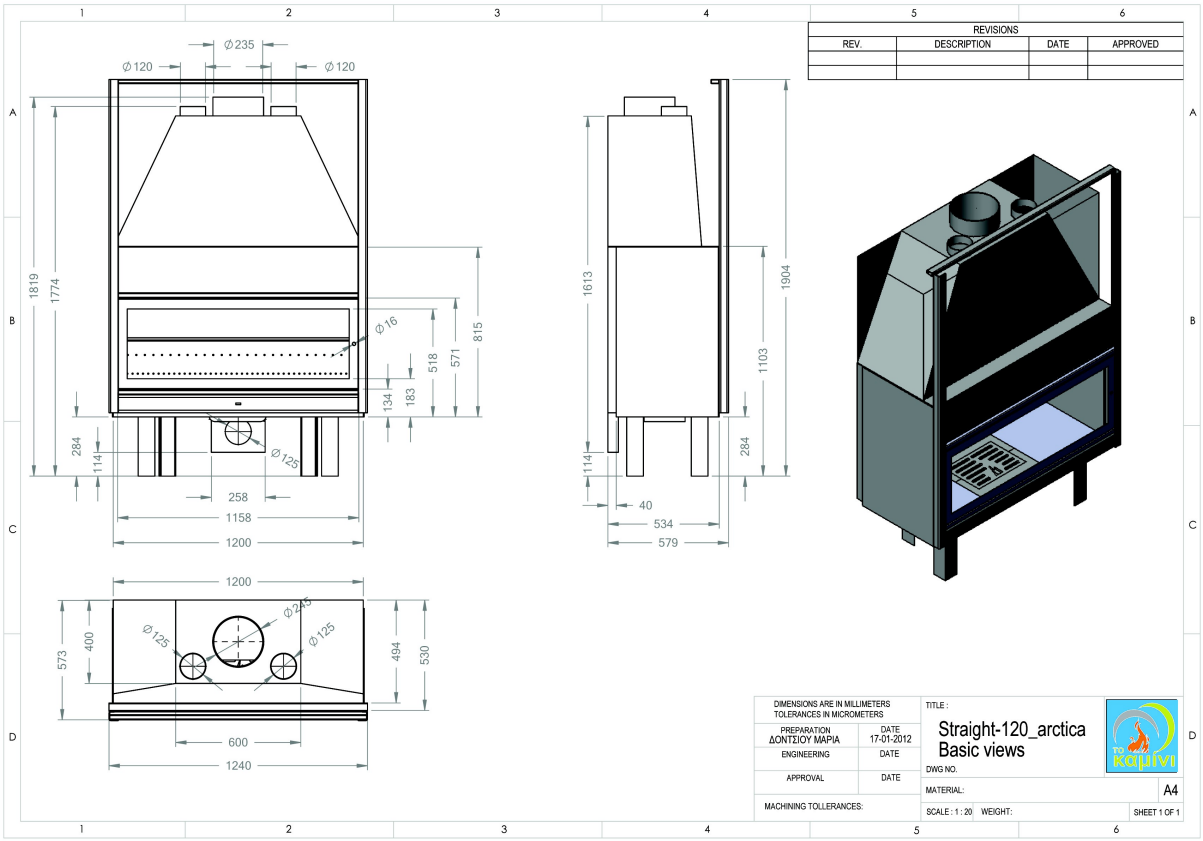


TECHNICAL CHARACTERISTICS

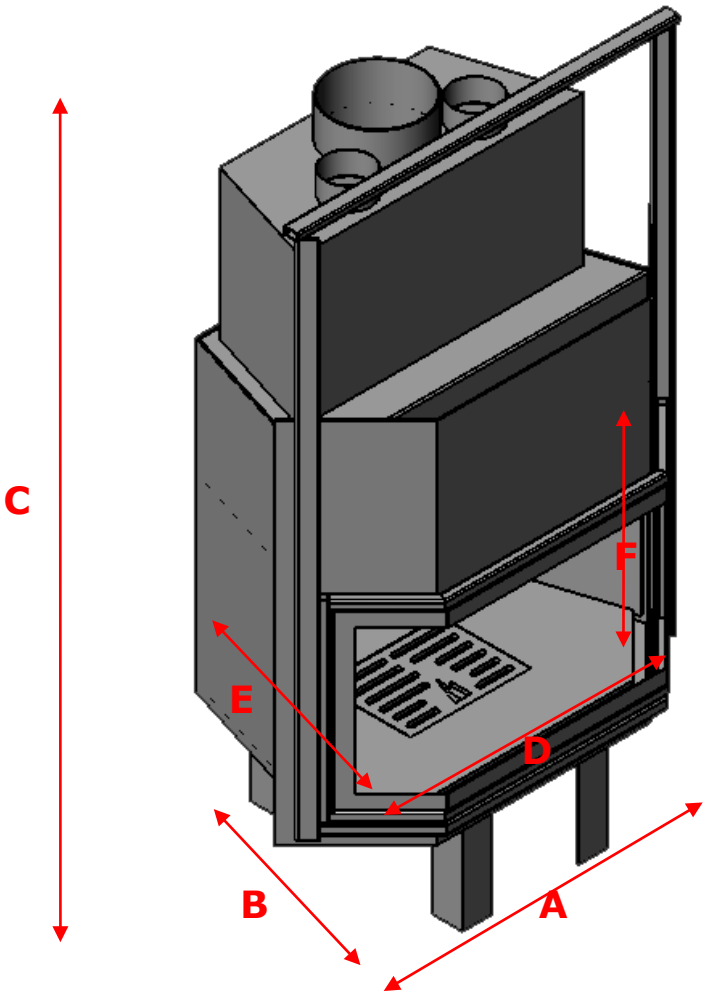
		Model		
		santorini Straight – 75	ephestus Straight - 90	arctica Straight -120
External dimensions (mm)	**Length A**	800	970	1280
	Depth B	520	600	580
	Height C	1700	1700	1620
Internal dimensions (mm)	**Length D**	740	900	1200
	Depth E	420	500	480
	Height F	800	800	765
Flue coupling dimensions	**mm**	∅250	∅250	∅250
Nominal heat output	**KW**	24	34	40
Efficiency	**%**	70	68	72
Fuel consumption	**Kg/h**	6,7 – 7,0	8,9 – 9,3	11,4 – 11,6
Flue gas mass flow	**g/sec**	26	32	32
Content of CO	**%**	0,26	0,32	0,31
Mean gas temperature	**°C**	318	314	385
Fuel		Wood	Wood	Wood

TECHNICAL CHARACTERISTICS





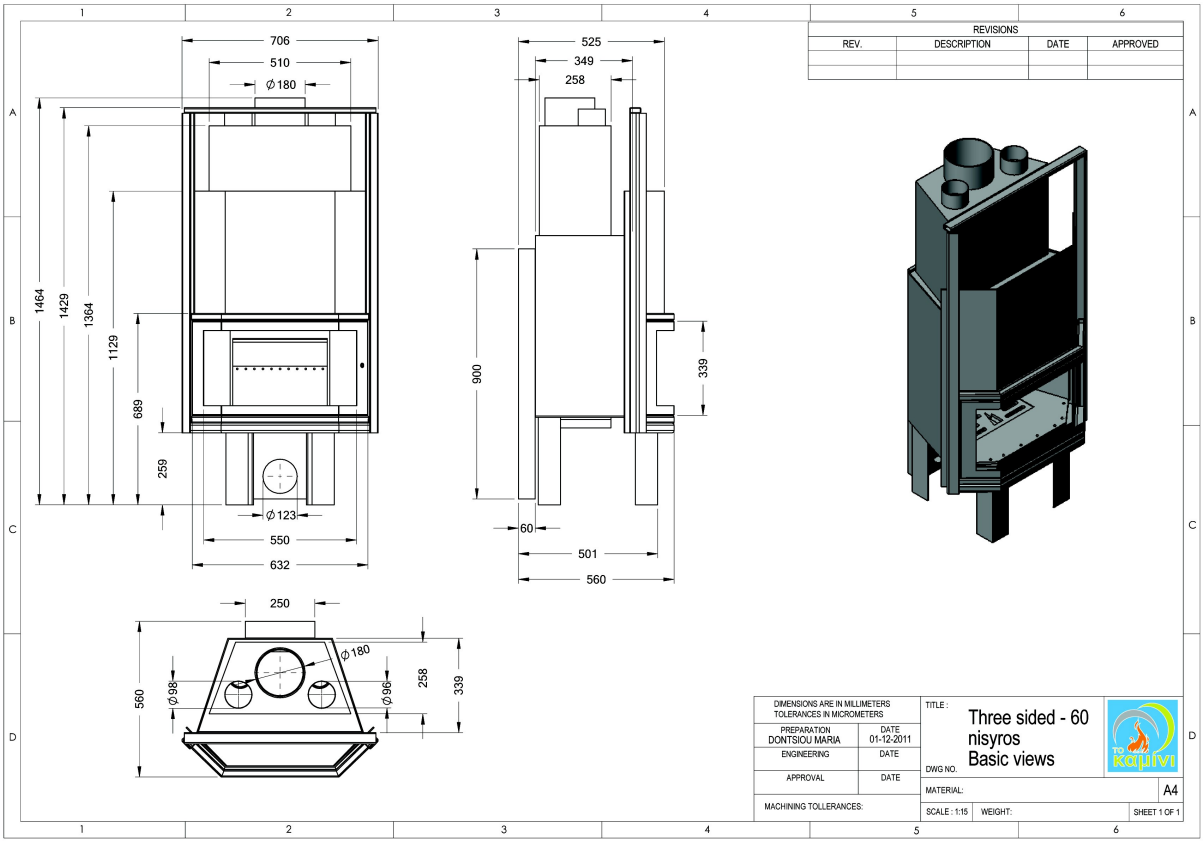
Three sided fireplaces

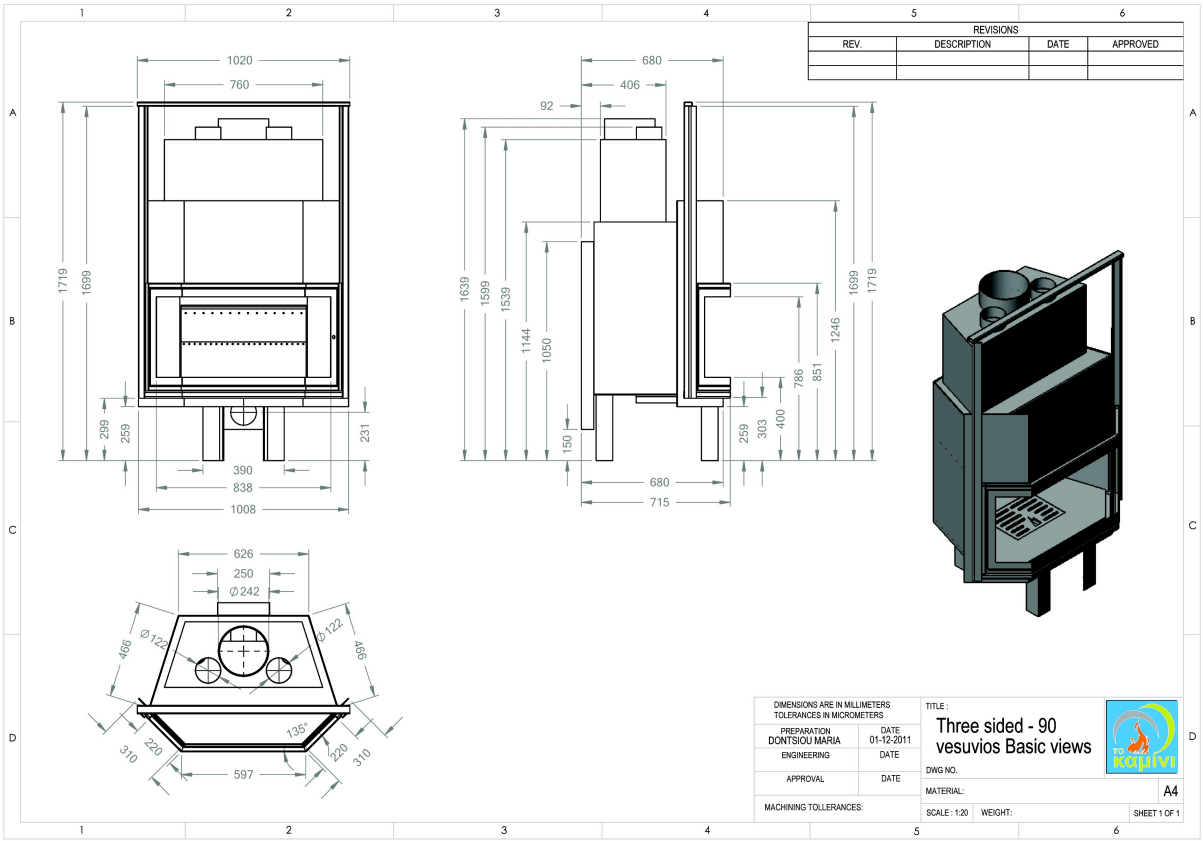


TECHNICAL CHARACTERISTICS

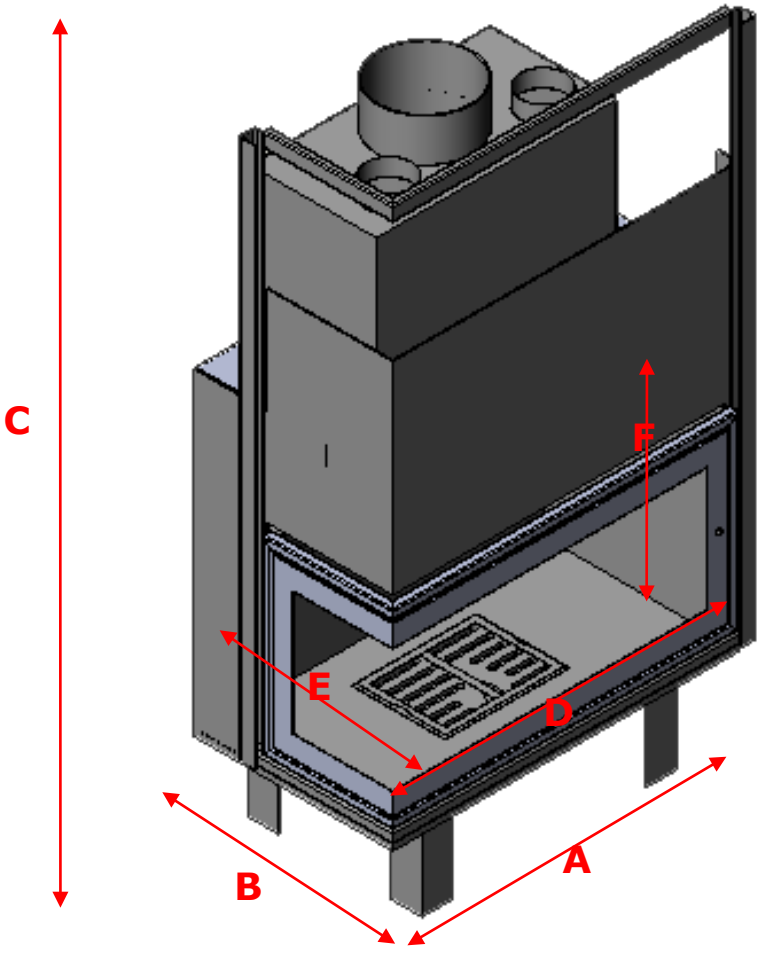
		Model		
		nisyros Three-sided – 60	oxygen Three-sided – 75	vesuvios Three-sided - 90
External dimensions (mm)	**Length A**	680	800	970
	Depth B	560	695	715
	Height C	1400	1700	1700
Internal dimensions (mm)	**Length D**	600	740	900
	Depth E	460	580	610
	Height F	650		820
Flue coupling dimensions	**mm**	∅200	∅250	∅250
Nominal heat output	**KW**	17	24	30
Efficiency	**%**	70	70	67
Fuel consumption	**Kg/h**	4,9 – 5,0	6,7 – 7,0	8,9 – 9,3
Flue gas mass flow	**g/sec**	20	26	30
Content of CO	**%**	0,36	0,26	0,32
Mean gas temperature	**°C**	278	318	310
Fuel		Wood	Wood	Wood

TECHNICAL CHARACTERISTICS





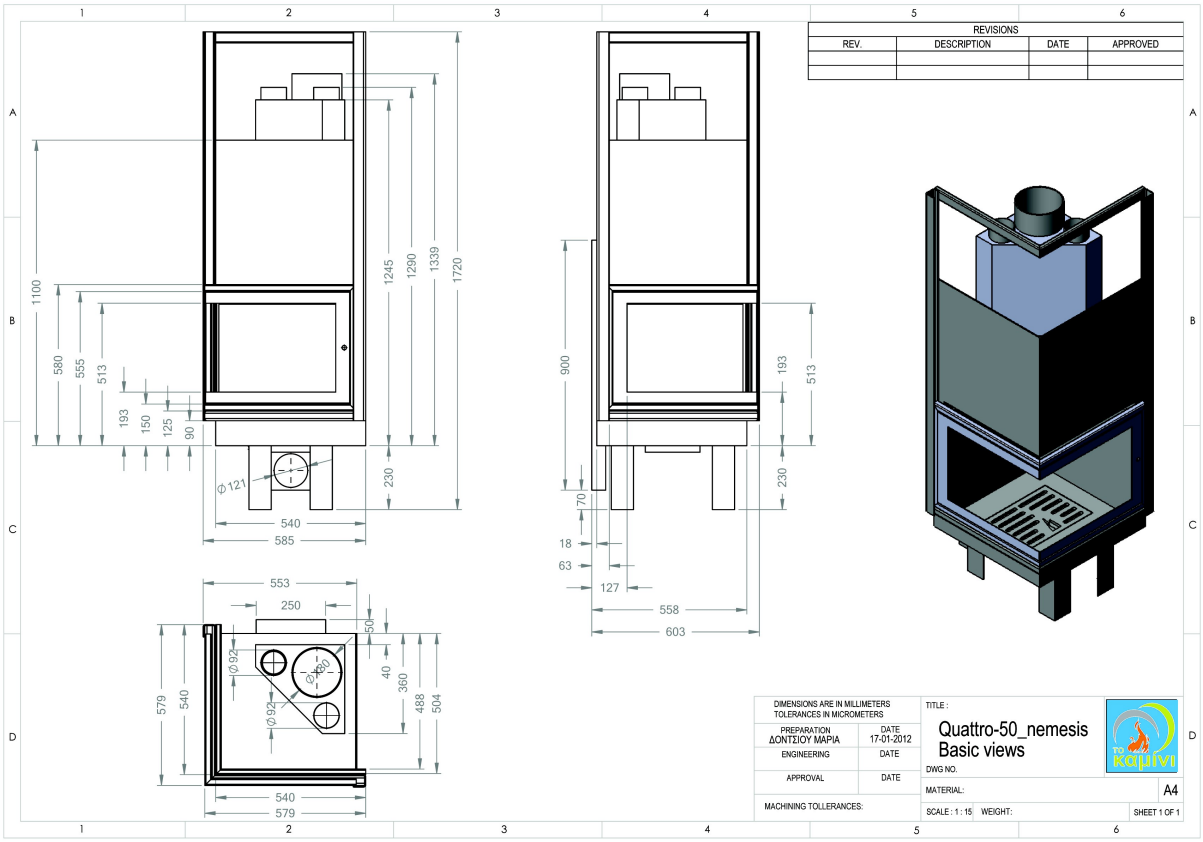
Quattro fireplaces

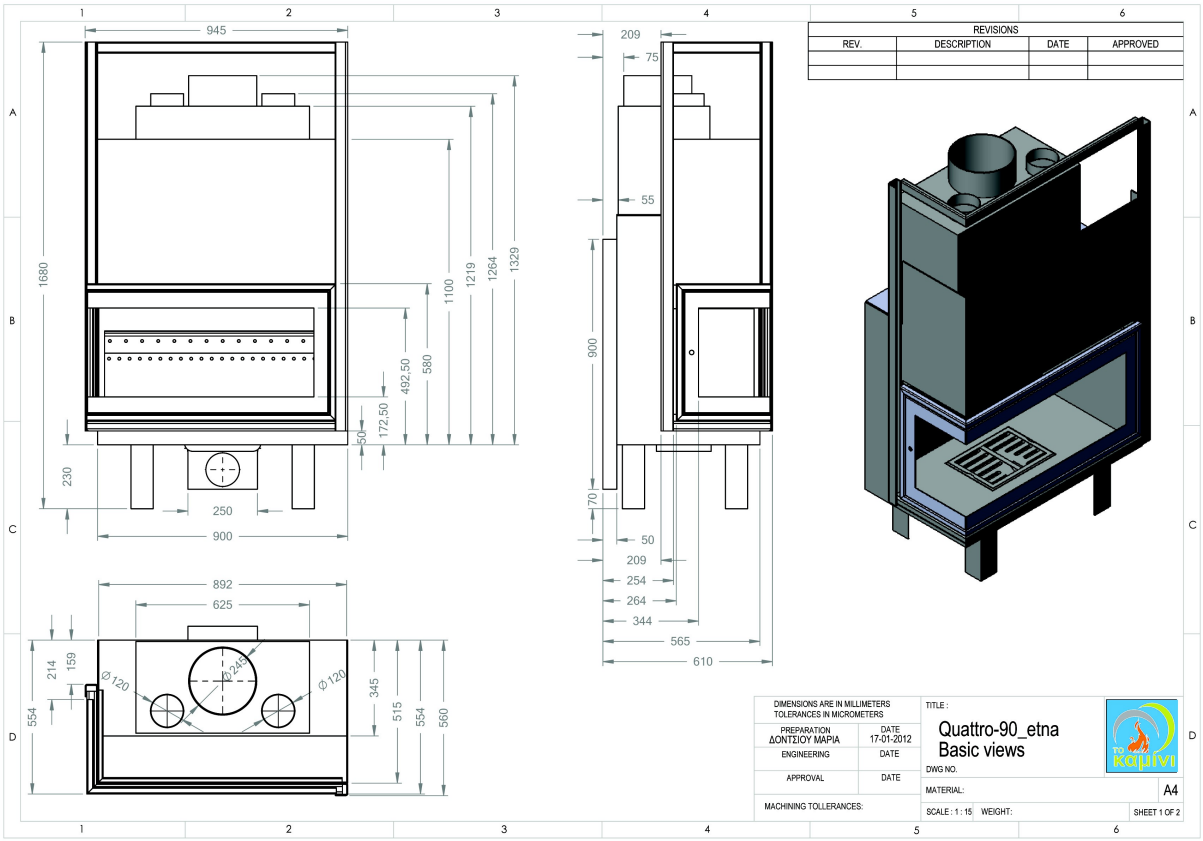


TECHNICAL CHARACTERISTICS

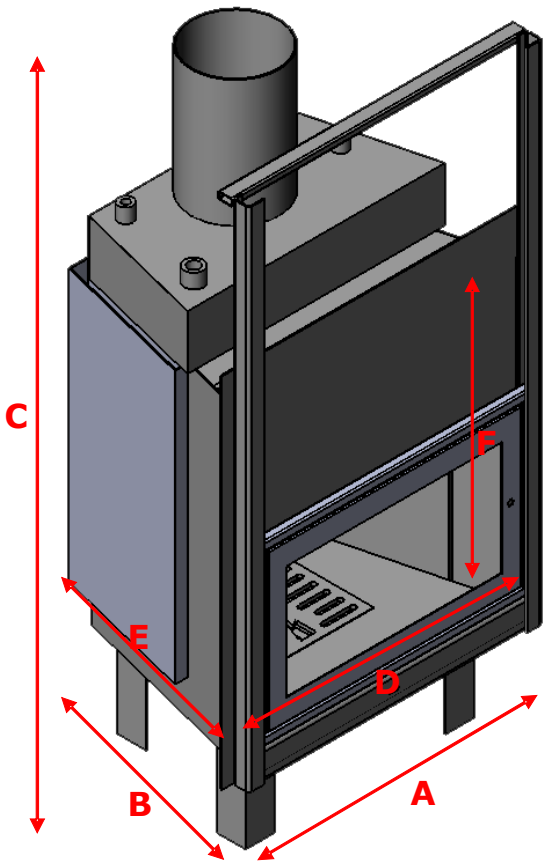
		Model		
		nemesis Quattro - 50	erevos Quattro - 75	etna Quattro - 90
External dimensions (mm)	**Length A**	580	750	910
	Depth B	580		610
	Height C	1700	1700	1700
Internal dimensions (mm)	**Length D**	500	740	900
	Depth E	500	505	505
	Height F	800		800
Flue coupling dimensions	**mm**	∅200	∅250	∅250
Nominal heat output	**KW**	18	24	28
Efficiency	**%**	70	70	69
Fuel consumption	**Kg/h**	4,9 – 5,6	6,7 – 7,0	8,0 – 8,7
Flue gas mass flow	**g/sec**	23	26	34
Content of CO	**%**	0,25	0,26	0,32
Mean gas temperature	**°C**	279	318	318
Fuel		Wood	Wood	Wood

TECHNICAL CHARACTERISTICS



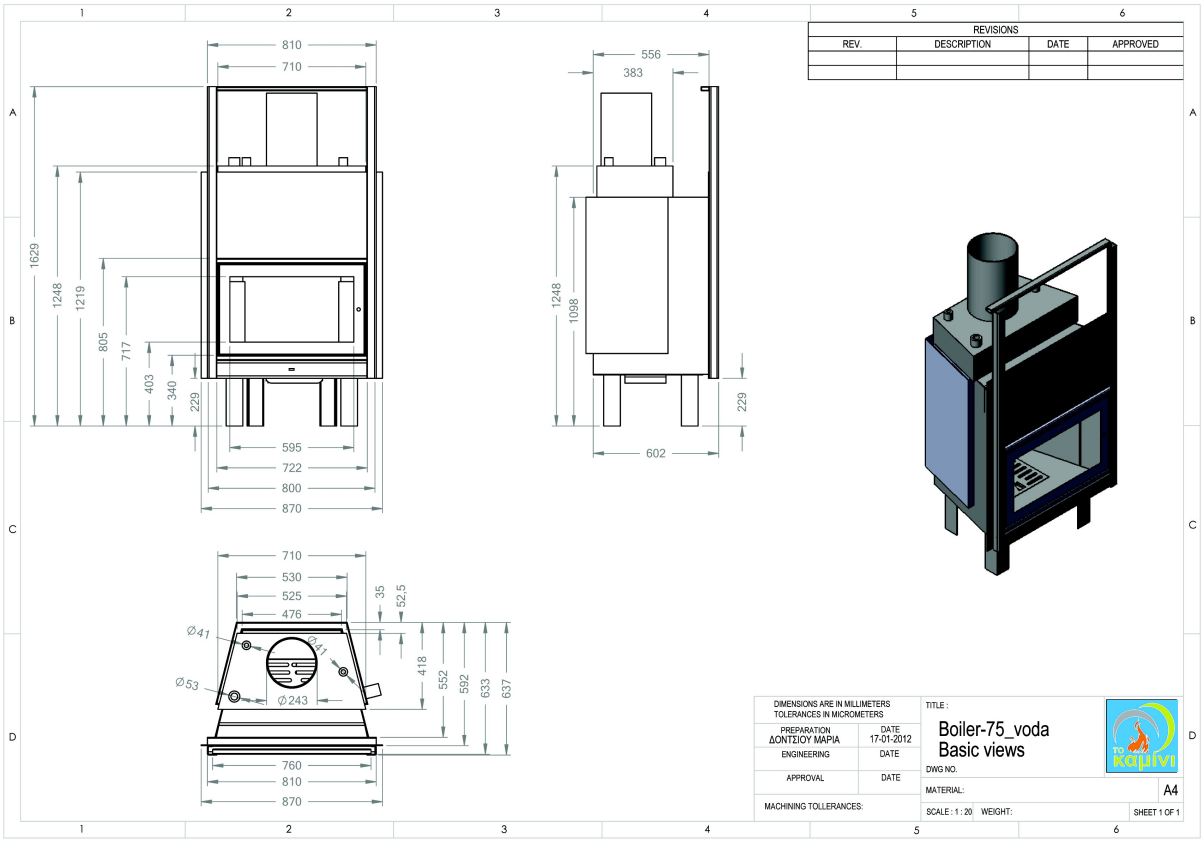


Water jacket (Boiler) fireplaces



		Model
		Voda Boiler - 75
External dimensions (mm)	Length A	870
	Depth B	640
	Height C	1700
Internal dimensions (mm)	Length D	720
	Depth E	550
	Height F	870
Flue coupling dimensions	mm	∅250
Nominal heat output	KW	30
Efficiency	%	70
Fuel consumption	Kg/h	8,4
Flue gas mass flow	g/sec	28
Content of CO	%	0,37
Mean gas temperature	°C	339
Fuel		Wood

TECHNICAL CHARACTERISTICS



Chapter

9

CERTIFICATES

TSIAKMAKIS BROS – KAMINI company has conformed with all the procedures for fireplaces certification so with compliance with European safety standards (CE) so with patent in their operations. The relevant certificates are presented.

Patent certificate

ΟΡΓΑΝΙΣΜΟΣ ΒΙΟΜΗΧΑΝΙΚΗΣ ΙΔΙΟΚΤΗΣΙΑΣ

ΔΙΠΛΩΜΑ ΕΥΡΕΣΙΤΕΧΝΙΑΣ

Αριθμ. **1007257**

Έχοντας υπόψη :

α) το άρθρο 8 παρ. 11 του νόμου 1733/87 "Μεταφορά τεχνολογίας, εφευρέσεις, τεχνολογική καινοτομία και σύσταση Επιτροπής Ατομικής Ενέργειας"
β) την υπ' αρ. 15928/ΕΦΑ/1253 απόφαση του Υπουργού Βιομηχανίας, Ενέργειας και Τεχνολογίας "Κατάθεση αίτησης για χορήγηση Διπλώματος Ευρεσιτεχνίας ή Πιστοποιητικού Υποδείγματος Χρησιμότητας στον ΟΒΙ και τήρηση βιβλίων"
γ) την αίτηση που κατέθεσε ο ενδιαφερόμενος στον Ο.Β.Ι. στις **13-4-2010** με αριθμό **20100100224** και την καταβολή στις **4-5-2011** του τέλους χορήγησης.

Απονέμουμε

Δίπλωμα Ευρεσιτεχνίας με θεωρημένα όλα τα κατά νόμον επισυναπτόμενα σχετικά έγγραφα , στους :

1. **ΤΣΙΑΚΜΑΚΗ ΑΝΑΣΤΑΣΙΟ του Γεωργίου**
   Ελευσίνας 11
   56431 ΣΤΑΥΡΟΥΠΟΛΗ (ΘΕΣΣΑΛΟΝΙΚΗΣ)
2. **ΤΣΙΑΚΜΑΚΗ ΑΛΕΞΑΝΔΡΟ του Γεωργίου**
   Δενδροποτάμου 11
   56224 ΕΥΟΣΜΟΣ (ΘΕΣΣΑΛΟΝΙΚΗΣ)

ΤΙΤΛΟΣ : "ΔΙΑΤΑΞΗ ΠΑΡΑΓΩΓΗΣ ΘΕΡΜΟΥ ΑΕΡΑ ΧΡΗΣΗΣ ΑΠΟ ΕΝΕΡΓΕΙΑΚΟ ΤΖΑΚΙ"

ΕΦΕΥΡΕΤΗΣ(ΕΣ) : 1. ΤΣΙΑΚΜΑΚΗΣ ΑΝΑΣΤΑΣΙΟΣ
2. ΤΣΙΑΚΜΑΚΗΣ ΑΛΕΞΑΝΔΡΟΣ

ΔΙΕΘΝΗΣ ΤΑΞΙΝΟΜΗΣΗ (INT.CL ^{8}) : F24B 1/188.

Το Δίπλωμα Ευρεσιτεχνίας αυτό, ισχύει μέχρι : **14-4-2030**

Αθήνα 11/05/2011

Ο Γενικός Διευθυντής

ΣΕΡΑΦΕΙΜ ΣΤΑΣΙΝΟΣ

ΟΡΓΑΝΙΣΜΟΣ ΒΙΟΜΗΧΑΝΙΚΗΣ ΙΔΙΟΚΤΗΣΙΑΣ Ο.Β.Ι.

ΝΟΜΙΚΟ ΠΡΟΣΩΠΟ ΙΔΙΩΤΙΚΟΥ ΔΙΚΑΙΟΥ ΕΠΟΠΤΕΥΟΜΕΝΟ ΑΠΟ ΤΟ ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ Δ.Β.Μ.& Θ.
ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΡΕΥΝΑΣ & ΤΕΧΝΟΛΟΓΙΑΣ

Manufacturer Declaration of Conformity

CERTIFICATES

ΔΗΛΩΣΗ ΚΑΤΑΣΚΕΥΑΣΤΗ			DECLARATION OF MANUFACTURER	
Κατασκευαστής:	ΑΦΟΙ ΤΣΙΑΚΜΑΚΗ Ο.Ε.		**Manufacturer:**	TSIAKMAKIS BROS CO
	Προέκτ. Ολυμπιάδος – Εύοσμος Θεσσαλονίκη, 56224, Ελλάδα			Over ring road Olimbiados str – Evosmos Thessaloniki, 56224, Greece
Προϊόν:	ΕΝΕΡΓΕΙΑΚΑ ΤΖΑΚΙΑ		**Product:**	ENERGY FIREPLACES
Χρήση:	Εσωτερική χρήση		**Use:**	Internal use
Οδηγία:	Προϊόντων Δομικών Κατασκευών 89/106/ΕΟΚ		**Directive:**	Construction products 89/106/EEC
Πρότυπο:	ΕΛΟΤ ΕΝ 13229 "Εντιθέμενες συσκευές, περιλαμβανομένων ανοικτών εστιών που καίνε στερεά καύσιμα - Απαιτήσεις και μέθοδοι δοκιμής"		**Standard:**	EN 13229 "Inset appliances including open fires fired by solid fuels - Requirements and test methods"

Δηλώνω με αποκλειστική μου ευθύνη ότι τα προϊόντα στα οποία αναφέρεται η παρούσα δήλωση συμμορφώνονται με τις απαιτήσεις της Οδηγίας Προϊόντων Δομικών Κατασκευών 89/106/ΕΟΚ και το Ευρωπαϊκό Πρότυπο ΕΛΟΤ ΕΝ 13229. Συγκεκριμένα, δηλώνω ότι:

1. Τα υλικά κατασκευής των τζακιών είναι:

Λαμαρίνα θερμής έλασης	EN 10023-2:2004 EN 10051:2010
Φαιός χυτοσίδηρος	
Κεραμικό γυαλί χαμηλής διογκώσεως	

2. Κανένα μέρος των συσκευών δεν περιέχει αμίαντο ή άλλες επιβλαβείς ουσίες.

3. Δεν χρησιμοποιήθηκε κάδμιο κατά τη ραφή ή τη συναρμολόγηση των τμημάτων των συσκευών.

4. Οι συσκευές που συνοδεύονται με ξεχωριστό σύνδεσμο καπνοσωλήνα κατάλληλου μεγέθους και το σχήματος που διασφαλίζει αεροστεγή σύζευξη μεταξύ της συσκευής και της καπνοδόχου.

5. Οι συσκευές έχουν σχεδιαστεί για ανατροφοδοτούμενη καύση στερεών καυσίμων - κορμών ξύλου.

6. Δεν επιτρέπεται η χρήση των συσκευών με κοινή καπνοδόχο με άλλες συσκευές - φούρνους και τζάκια.

7. Κάθε συσκευή παρέχεται μαζί με εγχειρίδια συναρμολόγησης και οδηγιών, γραμμένα στη γλώσσα της χώρας στην οποία παραδίνεται η συσκευή σύμφωνα με το άρθρο 7 του προτύπου EN 13299:2001/A1:2003/A2:2004/AC:2007.

Η δήλωση συμμόρφωσης παύει να ισχύει σε περίπτωση που αλλάξει η κατασκευή ή η διαδικασία κατασκευής του ή τα υλικά που χρησιμοποιούνται για την κατασκευή του.

I declare under my sole responsibility that the products to which this declaration refers are in conformity with the requirements of the Construction products Directive 89/106/EEC and the European Standard EN 13229. Specifically I declare that:

1. The construction materials of the fireplaces are:

Hot tolled plate	EN 10023-2:2004 EN 10051:2010
Hematite pig iron	
Low expansion glass-ceramics	

2. No part of the appliances contains asbestos or other harmful substances.

3. No cadmium was used when welding or assembling parts of the appliances together.

4. The appliances are separately offered with suitable size and shape flue coupling allowing air tight coupling between the fireplace and the flue.

5. The appliances are designed for intermittent burning of solid fuel - wood logs.

6. It is not allowed to use the appliances in shared flue with other appliances - stoves or fireplaces.

7. Each appliance is supplied with assembly and instruction manuals, written in the language of the country it is delivered to according to Article 7 of EN 13299:2001 /A1:2003 /A2:2004/AC:2007.

The declaration expires in case of any changes of the product construction, or production process or materials used to produce it.

Θεσσαλονίκη, Thessaloniki 21/11/2011

ΤΣΙΑΚΜΑΚΗΣ ΑΛΕΞΑΝΔΡΟΣ

Υπογραφή υπευθύνου/ Signature of the authorized person

Initial type testing according to EN 13229:2006

ПРОТОКОЛ ОТ ПИТП № 0089/23.02.2012.

"ТЕРМОТЕСТ КОНСУЛТ" ООД
Лице за оценяване съответствието на строителни продукти, Разрешение № CPD 09-NB1999 от 14.01.2008 на МРРБ, Идентификационен номер NB 1999 от регистъра на Европейската комисия

Адрес на регистрация:
София,
ж.к. „Борово",
бл. 10, вх.А, ап. 9.
Лаборатория за изпитване на устройства за отопление на твърдо гориво,
Адрес:
бул. "Климент Охридски", № 132,
София,
тел. 0886 537 981,
e-mail: info@termotestconsult.eu

TERMOTEST CONSULT LTD, Sofia
Authorised Body for Testing the Compliance of Building Products, Licence № CPD 09-NB1999 dated 14.01.2008 by the Ministry of Regional Development and Public Works (MRDPW), Identification Number NB 1999 of the Registry of the European Commission

Address of registration:
bl. 10, vh.A, ap. 9,
j.k. „Borovo",
Sofia, Bulgaria
Laboratory for Testing of Heating Appliances Using Solid Fuel
Address:
132, "Kliment Ohridski" blvrd,
Sofia, Bulgaria
tel. +359 886 537 981,
e-mail: info@termotestconsult.eu

ПРОТОКОЛ ОТ ПЪРВОНАЧАЛНО ИЗПИТВАНЕ ТИПА НА ПРОДУКТА
INITIAL TESTING OF THE PRODUCT TYPE REPORT
№ 0089/23.02.2012.

1. Име и описание на уреда:"Voda". Горивна камера за вграждане с водна риза изработена от стомана. Устройството е предназначено за отопление с търговско гориво – дървени цепеници и е предвидено за периодичен режим на горене. Конструктивно са осигурени;

- четири броя крака;
- горивна камера с трапецовидна в план форма;
- на дъното на горивната камера – скара от чугун;
- под скарата – съд за пепел тип "корито" от ламарина с ръкохватка за изваждане и отвори за осигуряване на въздух за горене;
- челно на дъното на горивната камера – декоративна планка предназначена за предпазване от изпадане жар и пепел;

ПРОТОКОЛ ОТ ПИТП № 0089/23.02.2012.

Анализ и спецификации на използваното за изпитването гориво предоставено от ИЛ
Analysis and Specification of the solid fuel used for testing and provided by the Laboratory

Вид на горивото Fuel Type	Съдържание на влага Humidity %	Съдържание на пепел Ash content %	Съдържание на водород Hydrogen content %	Съдържание на въглерод Carbon content %	Специфична калорийна стойност Specific calorific value kJ/kg
Дърва / Wood logs	12	-	5,28 ± 0,15	43,21 ± 0,52	17719 ± 90

Провел изпитването: инж...../ Н. Нинов/
Carried out testing: / eng. N. Ninov /
(фамилия, подпис / sir name, signature)

Ръководител на лаборатория: инж...../А. Димитров/
Laboratory Manager: /eng A. Dimitrov/
(фамилия, подпис, печат / sir name, signature, stamp)

Забележка 1. *Резултатите от изпитванията се отнасят само за изпитваните образци. Копирането на протокола от изпитване и части от него не могат да се размножават и разпространяват без писменото съгласие на Ръководителя на лабораторията и Управителя на фирма "Термотест Консулт"ООД*

Note 1: *The results of testing are valid only for the samples tested. Copying of this Protocol or parts of it can is not authorized without a written agreement of the Laboratory Manager and the Manager of "TermoTest Consult"LTD*

Забележка 2. *Разход на гориво 8,4 kg/h*

Note 2: *Fuel consumption 8,4 kg/h*

Забележка 3. *Изделието трябва да се предоставя в търговската мрежа оборудвано с устройство „студена ръка" за боравене с ръкохватките за безопасна работа на потребителя.*

Note 3: *The appliance should be placed on the market equipped with"cold hand" device for operating the handles ensuring safe work by the user.*

Забележка 4. *Стените на тристена по време на изпитването са облицовани с минерална вата с дебелина 30 mm и топлопроводимост 0,04 W/mK.*

Note 4: *During the testing the walls of the trihedron were lined with mineral wool with thickness of 30 mm and with thermal conductivity of 0,04W/mK.*

TERMOTEST CONSULT